## SEQUENCE LISTING

<110> Aventis Pasteur Limited Brunham, Robert Raudonikiene, Ausra Gallichan, Scott Murdin, Andrew Immunization Against Chlamydia Infectio with 60K CRMP <120> <130> RY185 <150> US 60/481,676 <151> 2003-11-20 <160> 14 <170> PatentIn version 3..3 <210> 1 <211> 1662 <212> DNA <213> Chlamydia muridium <220> <221> CDS <222> (1)..(1662) 48 atg cga ata gga gat cct atg aac aaa ctc atc aga cga gct gtg acg Met Arg Ile Gly Asp Pro Met Asn Lys Leu Ile Arg Arg Ala Val Thr atc ttc gcg gtg act agt gtg gcg agt tta ttt gct agc ggg gtg tta 96 Ile Phe Ala Val Thr Ser Val Ala Ser Leu Phe Ala Ser Gly Val Leu 25 gag acc tot atg goa gag tot oto tot acc aac gtt att agc tta got 144 Glu Thr Ser Met Ala Glu Ser Leu Ser Thr Asn Val Ile Ser Leu Ala 40 gac acc aaa gcg aaa gag acc act tct cat caa aaa gac aga aaa gca 192 Asp Thr Lys Ala Lys Glu Thr Thr Ser His Gln Lys Asp Arg Lys Ala 55 aga aaa aat cat caa aat agg act tcc gta gtc cgt aaa gag gtt act 240 Arg Lys Asn His Gln Asn Arg Thr Ser Val Val Arg Lys Glu Val Thr gca gtt cgt gat act aaa gct gta gag cct aga cag gat tct tgc ttt 288 Ala Val Arg Asp Thr Lys Ala Val Glu Pro Arg Gln Asp Ser Cys Phe ggc aaa atg tat aca gtc aaa gtt aat gat gat cgt aat gta gaa atc 336 Gly Lys Met Tyr Thr Val Lys Val Asn Asp Asp Arg Asn Val Glu Ile

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gag Glu	att Ile 130	act Thr	gct Ala	ata Ile	gjå aaa	aaa Lys 135	aga Arg	gac Asp	tgt Cys	gtt Val	gat Asp 140	gta Val	atc Ile	att Ile	aca Thr		432
cag Gln 145	caa Gln	tta Leu	cca Pro	tgc Cys	gaa Glu 150	gca Ala	gag Glu	ttt Phe	gtt Val	agc Ser 155	agt Ser	gat Asp	cca Pro	gct Ala	act Thr 160		480
act Thr	cct. Pro	act Thr	gct Ala	gat Asp 165	ggt. Gly	aag Lys	cta Leu	gtt Val	tgg Trp 170	aaa Lys	att Ile	gat Asp	cgg Arg	tta Leu 175	gga Gly		528
cag Gln	ggc Gly	gaa Glu	aag Lys 180	agt Ser	aaa Lys	att Ile	act Thr	gta Val 185	tgg Trp	gta Val	aaa Lys	cct Pro	ctt Ļeu 190	aaa Lys	gaa Glu		576
ggt Gly	tgc Cys	tgc Cys 195	ttt Phe	aca Thr	gct Ala	gca Ala	acg Thr 200	gtt Val	tgt Cys	gct Ala	tgt Cys	cca Pro 205	gag Glu	atc Ile	cgt Arg	•	624
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cca Pro 225	gaa Glu	agc Ser	gca Ala	tgt Cys	ttg Leu 230	cgt <sup>.</sup> Arg	tgc Cys	cca Pro	gta Val	act Thr 235	tat Tyr	aga Arg	att Ile	aat Asn	gta Val 240		720
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tac Tyr 305	Cys	ggt Gly	gga Gly	cac His	aaa Lys 310	Asn	act Thr	gct Ala	agc Ser	gta Val 315	Thr	aca Thr	gtg Val	atc Ile	aat Asn 320		960
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					gta Val											1104
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Asp	Pro 450	Ile	Cys	Val	gga Gly	Glu 455	Asn	Thr	Val	Tyr	Arg 460	Ile	Cys	Val	Thr	1392
Asn 465	Arg	Gly	Ser	Ala	gaa Glu 470	Ásp	Thr	Asn	Val	Ser 475	Leu	Ile	Leu	ГÀЗ	Phe 480	1440
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gat Asp	gct Ala 530	cgt Arg	Gly 333	gaa Glu	gct Ala	att Ile 535	ctt Leu	tct Ser	tcc Ser	gat Asp	aca Thr 540	ttg Leu	aca Thr	gtt Val	cct Pro	1632
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<212> PRT <213> Chlamydia muridium

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Asp Thr Lys Ala Lys Glu Thr Thr Ser His Gln Lys Asp Arg Lys Ala 50 55 60

Arg Lys Asn His Gln Asn Arg Thr Ser Val Val Arg Lys Glu Val Thr 65 70 75 80

Ala Val Arg Asp Thr Lys Ala Val Glu Pro Arg Gln Asp Ser Cys Phe 85 90 95

Gly Lys Met Tyr Thr Val Lys Val Asn Asp Asp Arg Asn Val Glu Ile 100 105 110

Val Gln Ser Val Pro Glu Tyr Ala Thr Val Gly Ser Pro Tyr Pro Ile 115 120 125

Glu Ile Thr Ala Ile Gly Lys Arg Asp Cys Val Asp Val Ile Ile Thr 130 135 140

Gln Gln Leu Pro Cys Glu Ala Cla Die Vol Gor Ger Asp Pro Ala Thr 145 150 155 160

Thr Pro Thr Ala Asp Gly Lys Leu Val Trp Lys Ile Asp Arg Leu Gly 165 170 175

Gln Gly Glu Lys Ser Lys Ile Thr Val Trp Val Lys Pro Leu Lys Glu 180 185 190

Gly Cys Cys Phe Thr Ala Ala Thr Val Cys Ala Cys Pro Glu Ile Arg

195 200 205 Ser Val Thr Lys Cys Gly Gln Pro Ala Ile Cys Val Lys Gln Glu Gly 210 215 Pro Glu Ser Ala Cys Leu Arg Cys Pro Val Thr Tyr Arg Ile Asn Val 225 235 240 Val Asn Gln Gly Thr Ala Thr Ala Arg Asn Val Val Glu Asn Pro Val Pro Asp Gly Tyr Ala His Ala Ser Gly Gln Arg Val Leu Thr Tyr 260 265 Thr Leu Gly Asp Met Gln Pro Gly Glu Gln Arg Thr Ile Thr Val Glu 275 280 285 Phe Cys Pro Leu Lys Arg Gly Arg Val Thr Asn Ile Ala Thr Val Ser 290 295 Tyr Cys Gly Gly His Lys Asn Thr Ala Ser Val Thr Thr Val Ile Asn 305 310 315 Glu Pro Cys Val Gln Val Asn Ile Glu Gly Ala Asp Trp Ser Tyr Val 325 330 Cys Lys Pro Val Glu Tyr Val Ile Ser Val Ser Asn Pro Gly Asp Leu 340 Val Leu Arg Asp Val Val Ile Glu Asp Thr Leu Ser Pro Gly Ile Thr 355 Val Val Glu Ala Gly Ala Gln Ile Ser Cys Asn Lys Leu Val Trp 380 -Thr Leu Lys Glu Leu Asn Pro Gly Glu Ser Leu Gln Tyr Lys Val Leu Val Arg Ala Gln Thr Pro Gly Gln Phe Thr Asn Asn Val Val Lys 410 Ser Cys Ser Asp Cys Gly Ile Cys Thr Ser Cys Ala Glu Ala Thr Thr

. 420

Tyr Trp Lys Gly Val Ala Ala Thr His Met Cys Val Val Asp Thr Cys 435 Asp Pro Ile Cys Val Gly Glu Asn Thr Val Tyr Arg Ile Cys Val Thr 455 450 Asn Arg Gly Ser Ala Glu Asp Thr Asn Val Ser Leu Ile Leu Lys Phe 470 Ser Lys Glu Leu Gln Pro Ile Ser Phe Ser Gly Pro Thr Lys Gly Thr 490 485 Ile Thr Gly Asn Thr Val Val Phe Asp Ser Leu Pro Arg Leu Gly Ser 505 500 Lys Glu Thr Val Glu Phe Ser Val Thr Leu Lys Ala Val Ser Ala Gly 525 520 Asp Ala Arg Gly Glu Ala Ile Leu Ser Ser Asp Thr Leu Thr Val Pro , 530 535 540 Val Ser Asp Thr Glu Asn Thr His Ile Tyr 545 <210> 3 <211> 1659 <212> DNA <213> Chlamydia trachomatis <220> <221> CDS <222> (1)..(1659) <400> 3 atg cga ata gga gat cct atg aac aaa ctc atc aga cga gca gtg acg 48 Met Arg Ile Gly Asp Pro Met Asn Lys Leu Ile Arg Arg Ala Val Thr 5 atc ttc gcg gtg act agt gtg gcg agt tta ttt gct agc ggg gtg tta 96 Ile Phe Ala Val Thr Ser Val Ala Ser Leu Phe Ala Ser Gly Val Leu 20 144 gag acc tot atg goa gag tot oto tot aca aac gtt att agc tta got Glu Thr Ser Met Ala Glu Ser Leu Ser Thr Asn Val Ile Ser Leu Ala . 35

					gac Asp												192
					gag Glu 70										ccg Pro 80		240
					gct Ala												288
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					gca Ala 150												480
					aag Lys												528
					att Ile												576
					gca Ala												<b>624</b>
					caa Gln												672·
					cgt Arg 230												720
					aca Thr											. •	768
					cat His												816
ctt.	gga	gat	atg	caa	cct	gga	gag	cac	aga	aca	att	act	gta	gag	ttt		864

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cct Pro	tgc Cys	gta Val	caa Gln	gta Val 325	agt Ser	att Ile	gca Ala	gga Gly	gca Ala 330	gat Asp	tgg Trp	tct Ser	tat Tyr	gtt Val 335	tgt Cys	1008
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tgg Trp	aaa Lys	gga Gly 435	gtt Val	gct Ala	gct Ala	act Thr	cat His 440	atg Met	tgc Cys	gta Val	gta Val	gat Asp 445	act Thr	tgt Cys	gac Asp	1344
cct Pro	gtt Val 450	Cys	gta Val	gga Gly	gaa Glu	aat Asn 455	act Thr	gtt Val	tac Tyr	cgt Arg	att Ile 460	tgt Cys	gtc Val	acc Thr	aac Asn	· 1392
aga Arg 465	ggt Gly	tct Ser	gca Ala	gaa Glu	gat Asp 470	aca Thr	aat Asn	gtt Val	tct Ser	tta Leu 475	atg Met	ctt Leu	aaa Lys	ttc Phe	tct Ser 480	1440
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Pro	Thr	Ala	Asp	Gly 165	Lys	Leu	Val	Trp	Lys 170	Ile	Asp	Arg	Leu	Gly 175	Glņ
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Glu 225	Asn ·	Ala	Cys	Leu	Arg 230	Cys	Pro	Val	Val	Tyr 235	Lys	Ile	Asn	Ile	Val 240
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Pro	Asp	Gly	Tyr 260	Ala	His	Ser	Ser	Gly 265	Gln	Arg	Val	Leu	Thr 270	Phe	Thr
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Pro	Сув	Val	Gln	Val 325	Ser	Ile	Ala	Gly	Ala 330	Asp	Trp	Ser	Tyr ·	Val 335	Сув
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## 10/22

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				tct Ser													96
				tcc Ser		Val											144
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gct Ala	gaa Glu	gat Asp 435	Thr	aat Asn	gtg Val	tcc Ser	tta Leu 440	Ile	ttg Leu	aaa Lys	ttc Phe	tct Ser 445	Lys	gaa Glu	tta Leu	1344

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rnr 65	Vaı	гуз	vāi	Āsn	Asp 70	Asp	Arg	Asn	Val	Gla 75	Ile	Val	Gln	Ser	Val 80	
Pro	Glu	Tyr	Ala	Thr 85	Val	Gly	Ser	Pro	Tyr 90	Pro	Ile	Glu	Ile	Thr 95	Ala	
Ile	Gly	Lys	Arg 100	Asp	Cys	Val	Asp	Val 105	Ile	Ile	Thr	Gln	Gln 110	Leu	Pro	

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		115			•		120					125			
Asp	Gly 130	Lys	Leu	Val	Trp	Lys 135	'Ile	Asp	Arg	Leu	Gly 140	Gln	Gly	Glu	Lys
Ser 145	Lys	Ile	Thr	Val	Trp 150	Val	Lys	Pro	Leu	Lys 155	Glu	Gly	Cys	C'na	Phe 160
Thr	Ala	Ala	Thr	Val 165	Cys	Ala	Cys	Pro	Glu 170	Ile	Arg	Ser	Val	Thr 175	Lys
Cys	Gly	Gln	Pro 180	Ala	Ile	Cys	Val	Lys 185	Gln	Glu	Gly	Pro	Glu 190	Ser	Ala
Cys	Leu	Arg 195	Cys	Pro	Val	Thr	Tyr 200	Arg	Ile	Asn	Val	Val 205	Asn	Gln	Gly
Thr	Ala 210	Thr	Ala	Arg	Asn	Val 215	Val	Val	Glu	Asn	Pro 220	Val	Pro	Asp	Gly
Tyr 225	Ala	His	Ala	Ser	Gly 230	Gln	Arg	Val	Leu	Thr 235	Tyr	Thr	Leu	Gly	Asp 240
Met	Gln	Pro	Gly	Glu 245	Gln	Arg	Thr	Ile	Thr 250	Val	Glu	.Phe	Сув	Pro 255	
Lys	Arg	Gly	Arg 260	Val	Thr	Asn	Ile	Ala 265	Thr	Val	Ser.	Tyr	Cys 270	Gly	Gly
His	Lys	Asn 275	Thr	Ala	Ser	Val	Thr 280	Thr ·	Val	Ile	Asn	Glu 285	Pro	Сув	Val
Gln	Val 290	Asn	·Ile	Glu	Gly	Ala 295	Asp	Trp	Ser	Tyr	Val	Сув	Lys	Pro	Val
Glu 305	Tyr	Val	Ile	Ser	Val 310	Ser	Asn	-Pro-	-Gly-	Asp 315	-beu	Val	Leu	Arg	Asp 320
Val	Val	Ile	Glu	Asp 325	Thr	Leu	Ser	Pro	Gly 330	Ile	Thr	Val	Val	G1u 335	Ala
Ala	Gly	Ala	Gln 340	Ile	Ser	Cys		Lys 345	Leu	Val	Trp	Thr	Leu 350	Lys	Glu

Leu Asn Pro Gly Glu Ser Leu Gln Tyr Lys Val Leu Val Arg Ala Gln 360 Thr Pro Gly Gln Phe Thr Asn Asn Val Val Lys Ser Cys Ser Asp 375 370 Cys Gly Ile Cys Thr Ser Cys Ala Glu Ala Thr Thr Tyr Trp Lys Gly 395 400 385 390 Val Ala Ala Thr His Met Cys Val Val Asp Thr Cys Asp Pro Ile Cys 405 410 Val Gly Glu Asn Thr Val Tyr Arg Ile Cys Val Thr Asn Arg Gly Ser 430 425 Ala Glu Asp Thr Asn Val Ser Leu Ile Leu Lys Phe Ser Lys Glu Leu 440 445 435 Gln Pro Ile Ser Phe Ser Gly Pro Thr Lys Gly Thr Ile Thr Gly Asn 450 455 460 Thr Val Val Phe Asp Ser Leu Pro Arg Leu Gly Ser Lys Glu Thr Val 480 470 475 Glu Phe Ser Val Thr Leu Lys Ala Val Ser Ala Gly Asp Ala Arg Gly Glu Ala Ile Leu Ser Ser Asp Thr Leu Thr Val Pro Val Ser Asp Thr 500 . 505 Glu Asn Thr His Ile Tyr <210> 7 <211> 1551 <212> DNA <213> Chlamydia trachomatis <220> <221> CDS <222> (1)..(1551) <400> 7

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								aaa Lys 25								96
								gag Glu								144
								tct Ser								192
								gtt Val								. 240
								tat Tyr								288
ggt Gly	aaa Lys	agg Arg	gat Asp 100	tgt Cys	gtt Val	gat Asp	gtt Val	atc Ile 105	att Ile	act Thr	cag Gln	caa Gln	tta Leu 110	cca Pro	tgt Cys	336
	Ala							cca Pro								384
								cgc Arg								432
	Ile							ctt Leu								480
								gag Glu								528
								<del>caa</del> Gln 185								576
								att Ile								624
								gaa Glu								672
gct	cat	tct	tct	gga	cag	cgt	gta	ctg	acg	ttt	act	ctt	gga	gat	atg	720

Ala 225	His	Ser	Ser	Gly	Gln 230	Arg	val	Leu	Thr	Phe 235	Thr	Leu	Gly	Asp	Met 240		٠,
caa Gln	cct Pro	gga Gly	gag Glu	cac His 245	aga Arg	aca Thr	att Ile	act Thr	gta Val 250	gag Glu	ttt Phe	tgt Cys ·	ccg Pro	ctt Leu 255	aaa Lys	•	768
cgt Arg	ggt Gly	cgt Arg	gct Ala 260	acc Thr	aat Asn	ata Ile	gca Ala	acg Thr 265	gtt Val	tct Ser	tac Tyr	tgt Cys	gga Gly 270	gga Gly	cat His		816
aaa Lys	aat Asn	aca Thr 275	gca Ala	agc Ser	gta Val	aca Thr	act Thr 280	gtg Val	atc Ile	aac Asn	gag Glu	cct Pro 285	tgc Cys	gta Val	caa Gln	٠.	864
gta Val	agt Ser 290	att Ile	gca Ala	gga Gly	gca Ala	gat Asp 295	tgg Trp	tct Ser	tat Tyr	gtt Val	tgt Cys 300	aag Lys	cct Pro	gta Val	gaa Glu	•	912
tat Tyr 305	gtg Val	atc Ile	tcc Ser	gtt Val	tcc Ser 310	aat Asn	cct Pro	gga Gly	gat Asp	ctt Leu 315	gtg Val	ttg Leu	cga Arg	gat Asp	gtc Val 320	· .	960
gtc Val	gtt Val	gaa Glu	gac Asp	act Thr 325	ctt Leu	tct Ser	ccc Pro	gga Gly	gtc Val 330	aca Thr	gtt Val	ctt Leu	gaa Glu	gct Ala 335	gca Ala		,1008
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aat Asn	cct	gga Gly 355	Glu	tct Ser	cta Leu	cag Gln	tat Tyr 360	aaa Lys	gtt Val	cta Leu	gta Val	aga Arg 365	gca Ala	caa Gln	act Thr	٠	1104
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ggt Gly 385	act Thr	tgt Cys	act Thr	tct Ser	tgc Cys 390	gca Ala	gaa Glu	gcg Ala	aca Thr	act Thr 395	tac Tyr	tgg Trp	aaa Lys	gga Gly	gtt Val 400		1200
gct Ala	gct Ala	act Thr	cat His	atg Met 405	Cys	gta Val	gta Val	gat Asp	act Thr 410	tgt Cys	gac Asp	cct Pro	gtt Val	tgt Cys 415	gta Val		1248
gga Gly	gaa Glu	aat Asn	act Thr 420	Val	tac Tyr	cgt Arg	att	tgt Cys 425	Val	acc Thr	aac	aga Arg	ggt Gly 430	Ser	gca Ala		1296
gaa Glu	gat Asp	aca Thr	Asn	gtt Val	tct Ser	tta Leu	atg Met	Leu	aaa Lys	ttc Phe	tct Ser	aaa Lys 445	Glu	ctg Leu	caa Gln		1344
cct Pro	gta Val	tco Ser	ttc Phe	tct Ser	gga Gly	cca Pro	act Thr	aaa Lys	gga Gly	acg Thr	att Ile	aca Thr	ggc Gly	aat Asn	aca Thr		1392

																-		
	450				•	455					460					•		
gta Val 465	gta Val	ttc Phe	gat Asp	tcg Ser	tta Leu 470	cct Pro	aga Arg	tta Leu	ggt Gly	tct Ser 475	aaa Lys	gaa Glu	act Thr	gta Val	gag Glu 480	٠.	1440	
			aca Thr														1488	
gcg Ala	att Ile	ctt Leu	tct Ser 500	tcc Ser	gat Asp	aca Thr	ttg Leu	act Thr 505	gtt Val	cca Pro	gtt Val	tct Ser	gat Asp 510	aca Thr	gag Glu		1536.	
			atc Ile					•								•	1551	
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<40	)> (	3									٠,							
Met 1	Glu	Ser	Leu	Ser 5	Thr	Asn	Val	Ile	Ser 10	Leu	Ala	Asp	Thr	Lys 15	Ala	-		
Lys	Asp	Asņ	Thr. 20	Ser	His	Lys	Ser	Lys 25	Lys	Aļa	Arg	Lys	Asn 30	His	Ser			
Lys	Glu	Thr 35	Pro	Val	Asp	Arg	Lys 40	Glu	Val	Ala	Pro	Val 45	His	Glu	Ser			
Lys	Ala 50	Thr	Gly	Pro	Lys	Gln 55	Asp	Ser	Cys	Phe	Gly 60	Arg	Met	Tyr	Thr	•		
Val 65	Lys	Val	Asn	Asp	Asp 70	Arg	Asn	Val	Glu	Ile 75	Thr	Gln	Ala	Val	Pro 80			
Glu	Туг	Ala	Thr	Val 85	Gly	Ser	Pro	Tyr	Pro 90	Ile	Glu	Ile	Thr	Ala 95	Thr	٠		
Gly	ŗys	Arg	Asp 100	Сув	Val	Asp	Val	Ile 105	Ile	Thr	Gln	Gln	Leu 110	Pro	Cys	•		
Glu	Ala	Glu 115	Phe	Val	Arg	Ser	Asp `120	Pro	Ala	Thr	Thr	Pro 125	Thr	'Ala	Asp			

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Gly Lys Leu Val Trp Lys Ile Asp Arg Leu Gly Gln Gly Glu Lys Ser 130 135 140

Lys Ile Thr Val Trp Val Lys Pro Leu Lys Glu Gly Cys Cys Phe Thr 145 150 155 160

Ala Ala Thr Val Cys Ala Cys Pro Glu Ile Arg Ser Val Thr Lys Cys
165 170 175

Gly Gln Pro Ala Ile Cys Val Lys Gln Glu Gly Pro Glu Asn Ala Cys 180 185 190

Leu Arg Cys Pro Val Val Tyr Lys Ile Asn Ile Val Asn Gln Gly Thr
195 200 205

Ala Thr Ala Arg Asn Val Val Val Glu Asn Pro Val Pro Asp Gly Tyr 210 215 220

Ala His Ser Ser Gly Gln Arg Val Leu Thr Phe Thr Leu Gly Asp Met 225 230 235 240

Gln Pro Gly Glu His Arg Thr Ile Thr Val Glu Phe Cys Pro Leu Lys 245 250 255

Arg Gly Arg Ala Thr Asn Ile Ala Thr Val Ser Tyr Cys Gly Gly His 260 265 270

Lys Asn Thr Ala Ser Val Thr Thr Val Ile Asn Glu Pro Cys Val Gln . 275 280 285

Val Ser Ile Ala Gly Ala Asp Trp Ser Tyr Val Cys Lys Pro Val Glu 290 295 300

Tyr Val Ile Ser Val Ser Asn Pro Gly Asp Leu Val Leu Arg Asp Val 305 310 315 320

Val Val Glu Asp Thr Leu Ser Pro Gly Val Thr Val Leu Glu Ala Ala 325 330 335

Gly Ala Gln Ile Ser Cys Asn Lys Val Val Trp Thr Val Lys Glu Leu 340 345 350

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PCT/CA2004/002004 WO 2005/049837

Asn Pro Gly Glu Ser Leu Gln Tyr Lys Val Leu Val Arg Ala Gln Thr 360 Pro Gly Gln Phe Thr Asn Asn Val Val Lys Ser Cys Ser Asp Cys 375 370 Gly Thr Cys Thr Ser Cys Ala Glu Ala Thr Thr Tyr Trp Lys Gly Val 395 390 385 Ala Ala Thr His Met Cys Val Val Asp Thr Cys Asp Pro Val Cys Val . 410 . 405 Gly Glu Asn Thr Val Tyr Arg Ile Cys Val Thr Asn Arg Gly Ser Ala 425 420 Glu Asp Thr Asn Val Ser Leu Met Leu Lys Phe Ser Lys Glu Leu Gln 440 Pro Val Ser Phe Ser Gly Pro Thr Lys Gly Thr Ile Thr Gly Asn Thr 455 450 Val Val Phe Asp Ser Leu Pro Arg Leu Gly Ser Lys Glu Thr Val Glu 475 465 470 Phe Ser Val Thr Leu Lys Ala Val Ser Ala Gly Asp Ala Arg Gly Glu 495 490 485 Ala Ile Leu Ser Ser Asp Thr Leu Thr Val Pro Val Ser Asp Thr Glu 500 505 510 Asn Thr His Ile Tyr 515 <210> 9 <211> 37 <212> DNA <213> Chlamydia muridium <400> 9 ataagaatgc ggccgcatgc gaataggaga tcctatg

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37

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